

Rowtrac™ 350

Rowtrac™ 400

Rowtrac™ 450

Rowtrac™ 500

Steiger® 350

Steiger® 400

Steiger® 450

Steiger® 500

Steiger® 550

Steiger® 600

Quadtrac® 450

Quadtrac® 500

Quadtrac® 550

Quadtrac® 600

Tier 4

Tractor

PIN ZDF100001 and above

OPERATOR'S MANUAL

Part number 47421817

1st edition English

November 2012



Contents

1 GENERAL INFORMATION

Read the Operator's Manual	1-1
Note to the owner.....	1-1
Emissions warranty.....	1-2
Electro-Magnetic Compatibility (EMC)	1-4
CNH America LLC technical manuals.....	1-5
Your tractor	1-6
Tractor intended use.....	1-8
Manual storage	1-9
Product identification	1-10
Machine orientation.....	1-14
Component location	1-16

2 SAFETY INFORMATION

Safety rules	2-1
Proposition 65	2-2
Safety rules	2-3
Ecology and the enviroment.....	2-14
ROPS and FOPS.....	2-15
Emergency exit	2-16
Safety signs	2-17
Articulation cylinder locking blocks	2-25
Diesel Exhaust Fluid (DEF)/AdBlue® safety signs	2-26

3 CONTROLS/INSTRUMENTS

ACCESS TO OPERATOR'S PLATFORM

Tractor access.....	3-1
---------------------	-----

OPERATOR'S SEAT

Overview	3-3
Control identification.....	3-4

INSTRUCTOR'S SEAT

Overview	3-7
----------------	-----

FORWARD CONTROLS

Steering column	3-9
Front console	3-12
Pedal controls	3-13
Ventilation	3-15
Front sun shade	3-15

RIGHT-HAND SIDE CONTROLS

Armrest console	3-16
Multi Function Handle	3-17

Control panel	3-20
Remote valve controls	3-27
Joystick	3-28
Armrest compartment	3-29
Adjusting the armrest console	3-31

REARWARD CONTROLS

Rear sun shade	3-32
----------------------	------

OVERHEAD CONTROLS

Overview	3-33
Automatic Temperature Control (ATC)	3-35
Automatic Temperature Control (ATC) operation	3-39
Center panel controls	3-41
Radio (if equipped)	3-45
Interior and access lights	3-46

EXTERIOR CONTROLS

Exterior hitch control	3-48
------------------------------	------

INSTRUMENT CLUSTER

Overview	3-49
Gauges	3-49
Status and warning icons	3-50
Upper display	3-53
Diesel Exhaust Fluid (DEF)/AdBlue® level	3-54
Lower display	3-55
Keypad	3-57
Instrumentation - setup menu	3-59
Instrumentation - adjust menu	3-66
Performance instrumentation	3-73

4 OPERATING INSTRUCTIONS

COMMISSIONING THE UNIT

Before starting the engine	4-1
----------------------------------	-----

STARTING THE UNIT

Normal engine starting	4-5
Cold temperature operation	4-7

STOPPING THE UNIT

Stopping the engine	4-9
---------------------------	-----

MOVING THE UNIT

Powershift transmission	4-11
-------------------------------	------

Selective Catalytic Reduction (SCR) system	4-19
Automatic Productivity Management (APM).....	4-23
Differential lock system	4-32
Constant engine speed	4-33
Electronic end of row system	4-36
Engine compression brake (if equipped)	4-46

5 TRANSPORT OPERATIONS

ROAD TRANSPORT

Tractor warning lamps and Slow Moving Vehicle (SMV) symbol.....	5-1
Wide transport marker light.....	5-2
Operating the tractor warning lamps	5-3
Safe transport speed	5-4
Implement warning lamps and Slow Moving Vehicle (SMV) symbol	5-4
Safety chain	5-5

SHIPPING TRANSPORT

Securing the tractor for shipping	5-6
---	-----

RECOVERY TRANSPORT

Safety rules	5-7
Towing the tractor.....	5-8

6 WORKING OPERATIONS

GENERAL INFORMATION

Product overview	6-1
------------------------	-----

REAR POWER TAKE-OFF (PTO)

Safety rules	6-2
Connecting the Power Take-Off (PTO)	6-4
Power Take-Off (PTO) operation	6-5

THREE POINT HITCH

Identification	6-7
Link adjustment.....	6-8
Sway block adjustment.....	6-10
Mechanical float adjustment.....	6-11
Hitch quick coupler - Category IVN.....	6-12
Transport lock	6-16
Hitch operation	6-17
Rear remote hitch switch	6-21
Position control operation	6-22
Slip control operation	6-24

DRAWBARS AND TOWING ATTACHMENTS

Safety rules	6-26
Drawbars and towing hitches - Capacities	6-27
Scraper operation	6-31

TRAILER BRAKE COUPLER

Safety rules	6-32
Trailer brake connections	6-32

AUXILIARY POWER CONNECTIONS

External power and lighting connections	6-33
Cab power connections	6-35

HYDRAULIC REMOTE CONTROL VALVES

Valve couplers and connections	6-38
Optional circuits	6-45
Hydraulic remote valve transport lock	6-46
Operating the controls	6-47
Remote valve display screens	6-51
Joystick operation	6-54
Auto auxiliary mode operation	6-59
Auto depth control operation	6-62

BALLASTING THE TRACTOR

Guidelines	6-65
Weights, cast metal and liquid	6-69
Wheel slip and power hop	6-75

FRONT AND REAR AXLE

Tire safety	6-76
Pressure and load ratings	6-77
Wheel installation	6-84
Wheel tread settings	6-90
Track preconditioning	6-101

7 MAINTENANCE

GENERAL INFORMATION

General information	7-1
Engine hood	7-2
Engine side shields	7-3
Opening the right-hand service door	7-4
Power cut-off switch (if equipped)	7-5
Filling the fuel tank	7-6
Fuel tank capacity	7-7

Filling the Diesel Exhaust Fluid (DEF)/AdBlue® tank	7-8
Diesel Exhaust Fluid (DEF)/AdBlue® tank capacity	7-9
Tire and rim service	7-10
Tractor jacking points	7-12
Lubricants and capacities	7-14
Consumables - Engine oil	7-15
Consumables - Diesel fuel	7-17
Consumables - Biodiesel fuels	7-18
Consumables — Diesel Exhaust Fluid (DEF)/AdBlue®	7-20
Consumables - Coolant solutions	7-24
Electrical specifications and service	7-25
Fuse and relay locations	7-27
Maintenance chart notes	7-35

MAINTENANCE CHART

Maintenance Chart	7-36
-------------------------	------

At warning message display

Air cleaner	7-38
Primary fuel filter	7-38

Every 10 hours or daily

Engine oil level	7-39
Wheel bolt torque	7-39
Wheel weight bolt torque	7-39
Transmission oil level	7-40
Hydraulic/axle oil level	7-41
Engine coolant level	7-41
Fuel level	7-42
General tractor inspection (see Note 1)	7-42

Every 50 hours

Fuel tank and fuel filter	7-43
Articulation hinge - upper front	7-45
Oscillation hinge - rear	7-45
Articulation hinge - lower	7-45
Articulation cylinder - front, left-hand, right-hand	7-46
Articulation cylinder - rear, left-hand and right-hand	7-46
Hitch cylinder pin - upper, left-hand and right-hand	7-47
Hitch cylinder pin - lower, left-hand and right-hand	7-47
Hitch rockshaft - left-hand and right-hand	7-48
Hitch lift links and top link	7-48

Every 250 hours

Cab air filter, outside (see Note 2)	7-49
Cab recirculation filter	7-50
Windshield washer fluid level	7-50
Driveshaft carrier bearing	7-51

Every 500 hours

Air tubing - engine	7-52
Alternator - water pump belt	7-52
Battery electrolyte level	7-53
Power Take Off (PTO) carrier bearing	7-54
Power Take Off (PTO) slip joint	7-54
Radiator and coolers	7-55

Every 600 hours

Engine oil and filter (see note 5)	7-57
Engine fuel filter (see note 6)	7-60
Engine fuel pre-filter	7-64
Diesel Exhaust Fluid (DEF)/AdBlue® in-line filter	7-69
Fuel tank vent (see note 8)	7-71

Every 1200 hours

Engine crankcase breather filter	7-72
Diesel Exhaust Fluid (DEF)/AdBlue® supply module filter	7-74

Every 1500 hours

Engine air tubing	7-79
Engine air filters (see Note 3)	7-80
Hydraulic oil and filters (see note 6)	7-86
Hydraulic reservoir breather	7-88
Transmission oil and filter (see note 6)	7-89
Transmission vent	7-90
Idler/roller wheel oil (see Note 7)	7-91
Cab air filter, outside (see Note 2)	7-92
Door lock and hinges (see Note 4)	7-93

Every 2000 hours or every two years

Engine coolant drain and flush	7-94
--------------------------------------	------

As required maintenance

Vehicle fire prevention	7-97
Pressure cooling system hoses	7-98
Hydraulic system hoses	7-98
Tire pressure	7-98
Engine fan belt	7-98
Viscous fan drive	7-99
Track inspection and bolt torque	7-99
Track tension release	7-101
Track alignment	7-103
Cab fabric and carpet	7-105
Seat belt	7-105

STORAGE

Placing in storage	7-106
Removing from storage.....	7-106

Electrical system

Battery removal and installation	7-107
Auxiliary battery connections	7-108
Hood lamp replacement	7-110
Flood and work lamp replacement	7-115
Fender tail lamp and warning lamp replacement	7-120
Cab roof warning lamp replacement	7-122
Wide transport marker lamp replacement	7-124
Rotating beacon lamp replacement	7-124
Interior lights lamp replacement	7-125

8 TROUBLESHOOTING

FAULT CODE RESOLUTION

Fault code retrieval	8-1
----------------------------	-----

ALARM(S)

Display warnings	8-3
Transmission disengages; neutral icon flashes	8-11

9 SPECIFICATIONS

Engine specifications	9-1
Power train and hydraulics	9-3
Speed charts	9-6
Vehicle dimensions and shipping weight	9-10
Maximum operating weight	9-14

10 ACCESSORIES

Performance monitor - Install.....	10-1
Chemical tank mounting.....	10-2
General accessories.....	10-5

1 - GENERAL INFORMATION

Read the Operator's Manual



Improper operation of this vehicle can cause death or serious injury. Before using the vehicle, make certain that every operator:

- Is instructed in safe and proper use of the machine.
- Reads and understands the manual(s) pertaining to the machine.
- Reads and understands all safety decals on the machine.

- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow CNH America LLC instructions on machine operation and maintenance.

Note to the owner

This manual contains important information about the safe operation, adjustment and routine maintenance of your tractor. The manual is divided into ten chapters as outlined in the table of contents. Refer to the index at the end of this manual for locating specific items about your tractor.

Do NOT operate or permit anyone to operate or service this machine until you or the other persons have read this manual. Use only trained operators who have demonstrated the ability to operate and service this machine correctly and safely.

This Operator's Manual is to be stored in the manual compartment behind the operator's seat in the vehicle. Make sure this manual is in good condition. Contact your dealer to obtain additional manuals.

Your dealer will instruct you in the general operation of your new equipment. Your dealer's staff of factory-trained service technicians will be glad to answer any questions that may arise regarding the operation of your machine. Case IH Max Service is also available for any service related issues. Call 1-877-4CASEIH (1-877-422-7344) or email maxservice.na@cnh.com.

Emissions warranty

U.S. EPA and California Emissions Control Warranty Statement

CASE IH AGRICULTURE warrants to the ultimate purchaser and each subsequent purchaser that the engine is designed, built and equipped so as to conform with U.S. Environmental Protection Agency regulations applicable at the time of manufacture and that it is free from defects in workmanship or material which would cause it not to meet these regulations for a period of:

- 2 years or 1,500 hours of operation, whichever occurs first, for engines less than 19kW/25HP
- 5 years or 3,000 hours of operation, whichever occurs first, for engines greater than or equal to 19kW/25HP

NOTE: *This warranty applies to all units operated in the United States or Canada.*

Coverage

The model year, class of diesel engine, and emission application determination for your engine are identified on the Emission Control Information Label. This label is affixed to one of the following areas of the engine: the top of engine's rocker arm cover, the right-hand side of the oil pan, and the right-hand side of the engine front gear cover. The warranty period begins on the date the new equipment is sold to the first retail purchaser. The presence of the emission control label is the indication that the engine conforms to the applicable standards. Any emission control system parts which are proven defective during normal use will be repaired or replaced during the warranty period.

The engine owner has responsibility to perform all the required maintenance listed in the Owner's Manual. CASE IH AGRICULTURE will not deny an emission warranty claim solely because no record of maintenance exists; however, a claim may be denied if failure to perform maintenance resulted in the failure of a warranted part.

It is recommended that replacement parts used for maintenance or repairs be CASE IH AGRICULTURE Service Parts to maintain the quality originally designed into your emission certified engine. The use of non- CASE IH AGRICULTURE parts does not invalidate the warranty on other components unless the use of such parts causes damage to warranted parts.

The manufacturer is liable for damages to other engine components caused by the failure of any warranted emission control system part. CASE IH AGRICULTURE is not responsible for failures resulting from improper repair or the use of parts that are not genuine CASE IH AGRICULTURE or CASE IH AGRICULTURE approved parts.

Component coverage

New engines certified for sale and registered will have the following items covered by the emission warranty, depending on the emission level of the engine, if the items were first installed on the new engine as original equipment:

Fuel injection system

- Fuel injection pump
- Fuel injectors
- Fuel injection lines

Air induction system

- Intake manifold
- Turbocharger system (includes exhaust manifold)
- Charge air cooler

Positive crankcase ventilation system (if applicable)

- PVC valve
- Oil fill cap

Exhaust after treatment Devices (if applicable)

- Catalytic converter (DOC)
- Diesel particulate filter (DPF)
- Selective catalytic reduction (SCR)
- Diesel Exhaust Fluid (DEF) tank and dispensing systems

Exhaust Gas Recirculation Systems (EGR)

- EGR valve assembly
- EGR cooler

Cold Start Enrichment Systems

Electronic Control Units, Sensors, Solenoids, and Wiring harnesses used in above systems

Emissions warranty does not cover

- Repairs arising from storage deterioration, failure to maintain the equipment, negligence, alteration, improper use of the equipment, collision or other accident, vandalism, or other casualty, or operation beyond rated capacity or specification.
- Repairs arising from abuse or neglect, including but not limited to: operation without adequate coolant or lubricants, adjustments to the fuel system outside equipment specifications, over-speeding, improper storage, starting, warm-up, or shutdown practices, incorrect fuel or contaminated fuel, oil or other fluids.
- Normal maintenance services, such as engine tune-ups, engine fuel system cleaning, checks, adjustments, shimming, etc.
- Items replaced due to customer demand.
- Labor charges performed by anyone except a dealer authorized by contract to repair the equipment, unless they qualify under special provisions (i.e. outside labor).
- Any and all travel costs for items such as towing, service calls, or transporting a unit to and from the place where the warranty service is performed.
- Normal maintenance costs, including but not limited to: lubricants, coolants, fluids, fuel, filters, and associated labor. Lubricants, filters, and coolants may qualify for warranty reimbursement if they require replacement as a DIRECT RESULT of a defect in material or workmanship.
- Claims involving the inspection or reconditioning of units after storage or prior use.
- Repairs arising from service performed by agents not approved by CASE IH AGRICULTURE.
- Repairs arising from any unauthorized modification to the product or the use of non- CASE IH AGRICULTURE parts, implements or attachments.
- Removal, replacement, or installation of non- CASE IH AGRICULTURE optional equipment, attachments or components.
- Premiums charged for overtime labor costs or out of shop expenses.
- Economic loss including lost profits, crop loss, equipment rental, or other expense.
- Unauthorized modification or updating machines without a warrantable failure.
- Any and all costs of dealer shop supplies incurred with repairs, including but not limited to: solvents, cleaners, anti-seize lubricants, loctite, sealant, adhesive, oil-dry, shop towels, etc.
- Failure of the machine, its implements or attachments caused by improper field application or loading.
- Any and all costs for coolant, fuel, or lube (oil) analysis including supplies and lab recommendations.
- Cost associated with cleaning of machine in preparation for servicing.

Electro-Magnetic Compatibility (EMC)

Interference may arise as a result of add-on equipment which may not necessarily meet the required standards. As such interference can result in serious malfunction of the unit and/or create unsafe situations, you must observe the following:

- The maximum power of emission equipment (radio, telephones, etc.) must not exceed the limits imposed by the national authorities of the country where you use the machine.
- The electro-magnetic field generated by the add-on system should not exceed **24 V/m** at any time and at any location in the proximity of electronic components.
- The add-on equipment must not interfere with the functioning of the on board electronics.

Failure to comply with these rules will render the CASE IH AGRICULTURE warranty null and void.

CNH America LLC technical manuals

Manuals are available from your dealer for your machine. Your dealer can expedite your order for operator manuals and parts catalogs.

Always give the machine name, model and P.I.N. (product identification number) of your machine so your dealer can provide the correct manuals for your machine.

The company is continually striving to improve its products and therefore reserves the right to make improvements and changes when it becomes practical and possible to do so, without incurring any obligation to make changes or additions to the equipment sold previously.

Manual scope and required training level

This manual provides information on the intended use of your tractor under the conditions foreseen by the manufacturer during normal operation, routine service and maintenance and periodic service and maintenance.

Normal operation is use of the tractor for the purpose intended by the manufacturer by an owner/operator who is familiar with the tractor and the mounted or towed equipment, and who is complying with the information on operation and safe practices, provided in this manual and by the decals on the tractor and the equipment.

Normal operation includes such actions as preparing the tractor for storage and removing the tractor from storage, adding or removing ballast, connecting and disconnecting mounted or towed equipment, raising and lowering components into or out of work position, adjusting tractor settings for specific field or crop settings, etc.

Routine service and maintenance are those actions which must be performed daily to maintain proper tractor function by an owner/operator who is familiar with tractor characteristics, and who is complying with the information on routine service and safe practices in this manual and in the decals on the tractor.

Routine service and maintenance includes such actions as fueling, cleaning, washing, topping off fluid levels, greasing, and replacing consumable articles such as lamp bulbs.

Periodic service and maintenance are those actions which must be performed at regularly defined intervals

All data given in this manual is subject to production variations.

NOTICE: *Operating and service messages displayed on the electronic operating panel may vary from what is shown in the manual. If this occurs, heed the latest instructions on the electronic operating panel.*

Dimensions and weights are approximate only and the illustrations do not necessarily show the machine in standard condition. For exact information about any particular machine, please consult your dealer.

to maintain proper tractor function by an owner/operator who is familiar with tractor characteristics, and who is complying with the information on periodic service and safe practices in this manual and in the decals on the tractor.

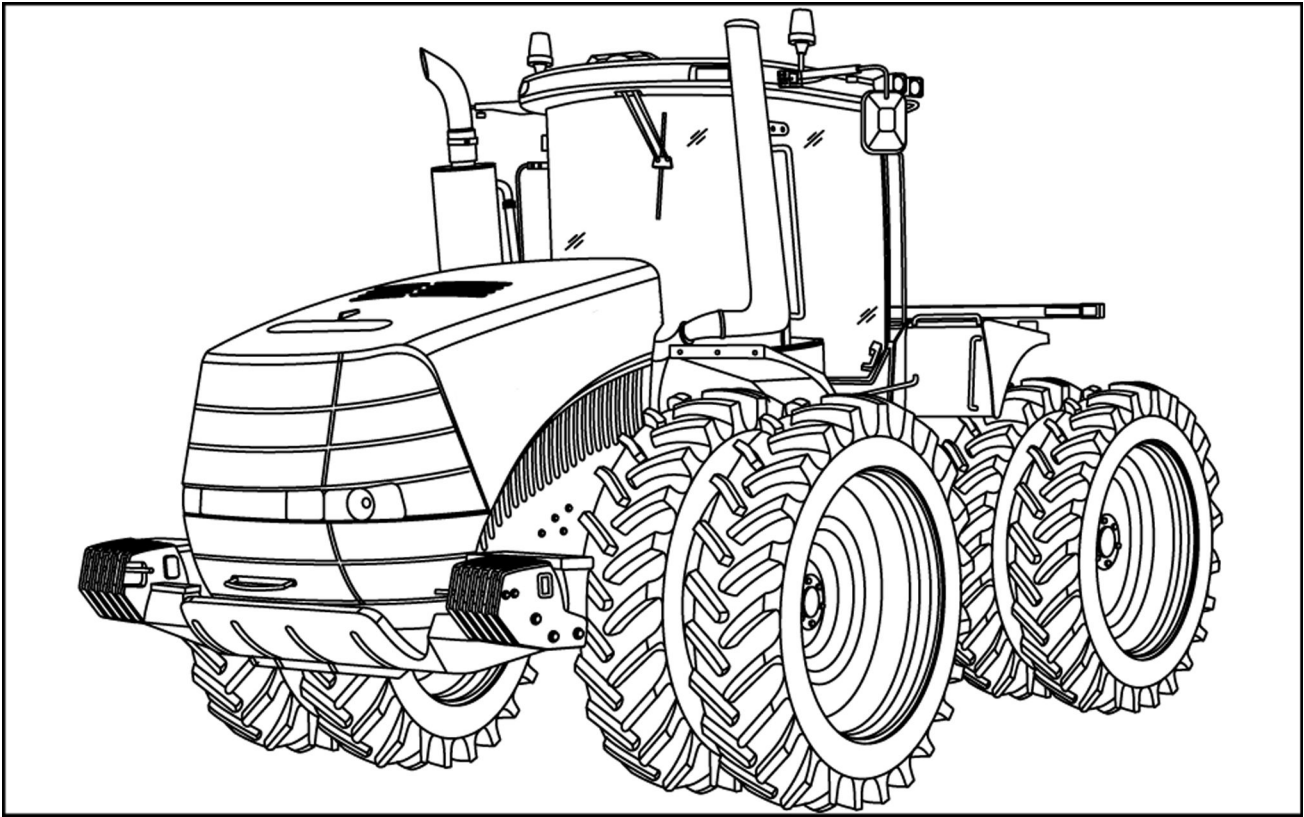
Periodic service and maintenance includes such actions as checking, cleaning and changing air filters, changing engine oil and filters, changing transmission oil and filters, changing front axle and wheel hub fluids, changing coolant, etc.

Some actions in the periodic service and maintenance chart are beyond the knowledge and skills of the owner/operator: for example, engine valve adjustment, fuel injector nozzles. For these actions, the manual instructs the owner/operator to have the action performed by their authorized dealer.

This manual does not contain all the information related to periodical service and maintenance, converting and repairs to be carried out by professional service personnel. These actions require special facilities, technical skills, and/or tools which are not supplied with the machine.

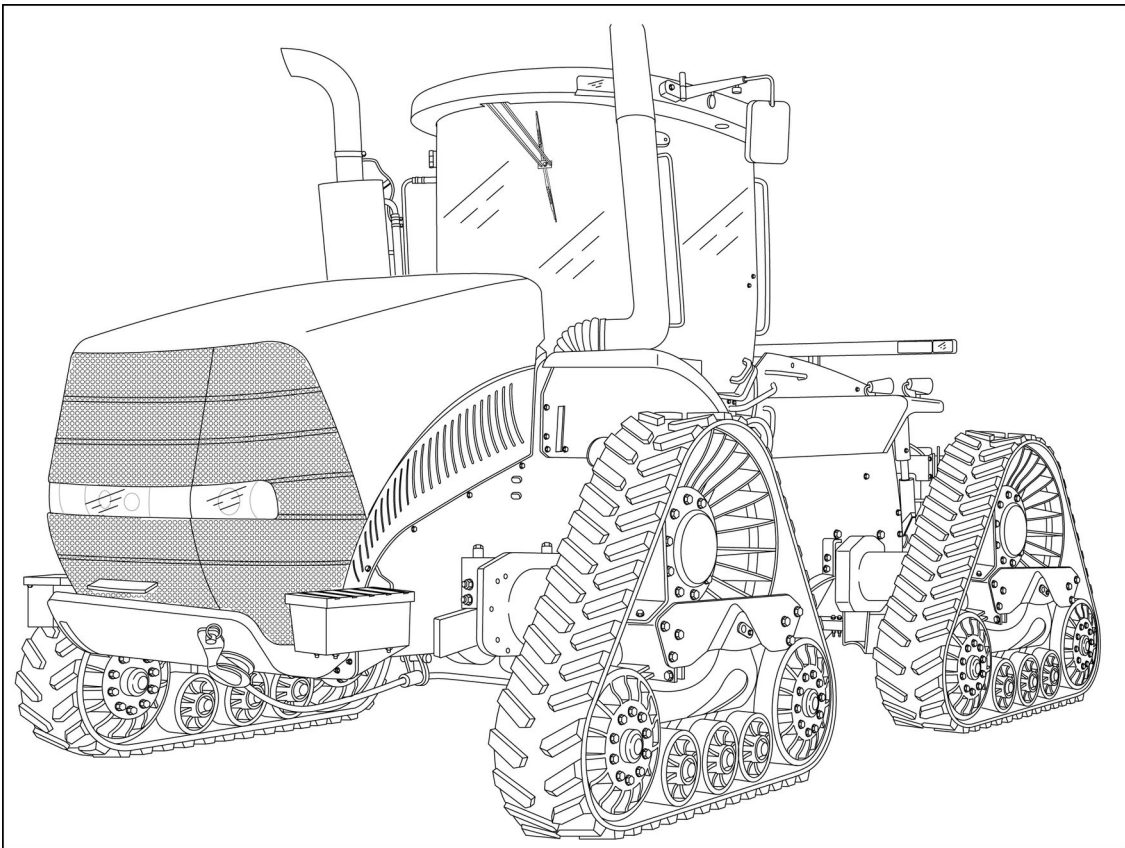
Converting is changing the tractor configuration for a specific crop or soil condition and requires rebuilding or adding components to the vehicle: for example, installation of dual wheels. Repairing is the disassembly and assembly of the tractor to restore proper operation after a component failure or degradation of performance.

Your tractor



RCPH10FWD468GAG 1

Steiger models



RAIL12TR02319FA 2

Rowtrac models

Buy Now



Our support email:

ebooklibonline@outlook.com